

AMENDMENTS TO THE CLAIMS

Claims 1-28. (Canceled)

29. (Currently Amended) A radiological imaging method, comprising the steps of:

detecting the X-ray passing through a test object administered with radiopharmaceutical, said object being placed on a bed; [[and]]

detecting a γ -ray emitted from said test object due to said radiopharmaceutical in said test object at a position of said test object irradiated with the X-ray with a γ -ray detecting section placed around said bed and aligned in a longitudinal direction of said bed; and

moving an X-ray source in said longitudinal direction inside said γ -ray detecting section, when the X-ray is detected.

30. (Original) The radiological imaging method according to claim 29, wherein said γ -ray is emitted from a part where an X-ray passes through in said test object.

31. (Original) The radiological imaging method according to claim 29, further comprising a step of producing tomographic image information using first information obtained from said γ -ray detection signal and second information obtained from said X-ray detection signal.

32. (Currently Amended) A radiological imaging method, comprising the steps of:

detecting a γ -ray emitted from a part where radiopharmaceutical concentrates in a test object placed on a bed with a γ -ray detecting section placed around said bed and aligned in a longitudinal direction of said bed;

moving an X-ray source in said longitudinal direction inside said γ -ray detecting section, when the X-ray is detected, and irradiating an X-ray onto said test object and detecting an X-ray passing through the part; and

~~irradiating an X-ray onto said test object and detecting an X-ray passing through the part, said test object being placed on a bed when radiation is detected;~~

detecting the γ -ray emitted from the part while said bed on which said test object is placed exists on a position for detecting the X-ray passing through the part.

33. (Original) The radiological imaging method according to claim 32, further comprising a step of detecting said γ -ray and said X-ray using a common radiation detector.

34. (Original) The radiological imaging method according to claim 32, further comprising a step of moving an X-ray source for emitting the X-ray around said test object when said X-ray is detected.

35. (Original) A radiological imaging method, comprising the steps of:
detecting a γ -ray emitted from a part where radiopharmaceutical concentrates in a test object;

irradiating an X-ray onto said test object and detecting an X-ray passing through the part, said test object being placed on a bed when radiation is detected;

detecting the γ -ray using a γ -ray detecting section including a plurality of radiation detectors aligned substantially in parallel with the longitudinal direction of said bed; and

irradiating the X-ray to the part of said test object through gaps formed on said γ -ray detecting section.

36. (Original) The radiological imaging method according to claim 35, further comprising a step of detecting an X-ray passing through the part of said test object using an X-ray detecting section through the gaps formed on said γ -ray detecting section.

37. (Original) The radiological imaging method according to claim 35, further comprising a step of moving an X-ray source for emitting the X-ray, substantially in parallel with the longitudinal direction of said bed.

38. (Currently Amended) A radiological imaging method, comprising the steps of:

detecting a γ -ray emitted from a part where radiopharmaceutical concentrates in a test object placed on a bed with a γ -ray detecting section comprising a plurality of radiation detectors placed around said bed and aligned substantially in parallel to a longitudinal direction of said bed;

moving an X-ray source in said longitudinal direction inside said γ -ray detecting section, when the X-ray is detected;

irradiating an X-ray from said x-ray source onto said test object on said bed and detecting an X-ray passing through the part; and

~~irradiating an X-ray onto said test object and detecting an X-ray passing through the part, said test object being placed on a bed when radiation is detected;~~

~~detecting the γ -ray using a γ -ray detecting section including a plurality of radiation detectors aligned substantially in parallel with the longitudinal direction of said bed; and~~

irradiating the X-ray onto test object between one end and the other end of said γ -ray detecting section in the direction.

39. (Currently Amended) A radiological imaging method, comprising the steps of:

detecting a γ -ray emitted from said test object placed on a bed with a γ -ray detecting section placed around said bed and aligned in a longitudinal direction of said bed during a radiological imaging examination period for obtaining a γ -ray detection signal required for production of tomographic image information of said test object; [[and]]

moving an X-ray source in said longitudinal direction inside said γ -ray detecting section, when the X-ray is detected; and

detecting an X-ray passing through said test object during said radiological imaging examination period.

40. (Original) The radiological imaging method according to claim 39, further comprising the steps of:

producing first tomographic image information using first information obtained from the γ -ray detection signal;

producing second tomographic image information using second information obtained from the X-ray detection signal; and

producing third tomographic image information including said first tomographic image information and said second tomographic image information on said test object.

41. (Original) The radiological imaging method according to claim 39, further comprising the steps of:

inputting the γ -ray detection signal to a γ -ray detection signal processor; and
inputting the X-ray detection signal to an X-ray detection signal processor.

42. (Original) The radiological imaging method according to claim 39, further comprising a step of detecting the X-ray in a part of said radiological imaging examination period.

43. (Original) The radiological imaging method according to claim 39, wherein radiation detectors for detecting the γ -ray are used as said radiation detectors for detecting the X-ray.

44. (Currently Amended) A radiological imaging method, comprising the steps of:

detecting a γ -ray emitted from a test object placed on a bed with a γ -ray detecting section placed around said bed and aligned in a longitudinal direction of said bed using a plurality of radiation detectors placed in a radiological imaging apparatus; [[and]]

moving an X-ray source in said longitudinal direction inside said γ -ray detecting section, when the X-ray is detected; and

detecting an X-ray passing through said test object using some of said radiation detectors at some point.

45. (Currently Amended) A radiological imaging method, comprising the steps of:

moving an X-ray source in a longitudinal direction of a bed inside a γ -ray detecting section, when the X-ray is detected, and detecting an X-ray passing through the test object placed on said bed using some of a plurality of radiation detectors provided in a radiological imaging apparatus; and

detecting a γ -ray emitted from said test object using said radiation detectors included in said γ -ray detecting section placed around said bed and aligned in a longitudinal direction of said bed other than said some of the radiation detectors, while said some of said radiation detectors detect the X-ray ~~some radiation detectors when some radiation detectors detect the X-ray.~~

46. (Original) The radiological imaging method according to claim 44, further comprising the steps of:

producing first tomographic image information on said test object based on the γ -ray detection signal;

producing second tomographic image information on said test object based on the X-ray detection signal; and

producing third tomographic image information on said test object, said third tomographic image information including said first tomographic image information and second tomographic image information.

47. (Original) The radiological imaging method according to claim 44, wherein radiation detectors for detecting the γ -ray are used as said radiation detectors for detecting the X-ray.

48. (Original) The radiological imaging method according to claim 47, further comprising the steps of:

inputting a detection signal of the γ -ray to a γ -ray detection signal processor;
detecting an X-ray passing through said test object; and
inputting a detection signal of the X-ray to an X-ray detection signal processor.

49. (Currently Amended) The radiological imaging method according to claim 39, further comprising a step of moving an X-ray source around said test object within an examination range set in a longitudinal direction of said test object, said X-ray source emitting an X-ray to be irradiated onto said test object.

Claims 50-53. (Canceled)